

## BENCHMARK SC.5.P.10.2

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| <b>Reporting Category</b>       | Physical Science   |
| <b>Standard</b>                 | <b>Big Idea 10</b> Forms of Energy   |
| <b>Benchmark</b>                | <b>SC.5.P.10.2 Investigate and explain that energy has the ability to cause motion or create change. (Also assesses SC.3.P.10.2, SC.4.P.10.2, and SC.4.P.10.4.)</b>  |
| <b>Also Assesses</b>            | <p><b>SC.3.P.10.2</b> Recognize that energy has the ability to cause motion or create change.</p> <p><b>SC.4.P.10.2</b> Investigate and describe that energy has the ability to cause motion or create change.</p> <p><b>SC.4.P.10.4</b> Describe how moving water and air are sources of energy and can be used to move things.</p> |
| <b>Benchmark Clarifications</b> | <p>Students will explain that energy has the ability to cause motion or create change.</p> <p>Students will identify and/or describe examples where energy has caused motion or created changes.</p> <p>Students will describe and/or explain how water and/or air are sources of energy.</p>  |
| <b>Content Limit</b>            | Items will not assess sound and chemical energy.   |
| <b>Stimulus Attributes</b>      | <p>Comparative words such as <i>greater than</i>, <i>less than</i>, <i>faster</i>, or <i>slower</i> should be used when describing motion.</p> <p>Scenarios will not use weathering and/or erosion as a context.</p>   |
| <b>Response Attributes</b>      | None specified   |
| <b>Prior Knowledge</b>          | Items may require the student to apply science knowledge described in the NGSSS from lower grades. This benchmark requires prerequisite knowledge from SC.K.P.10.1, SC.K.P.12.1, SC.1.P.12.1 and SC.K.P.13.1, SC.1.P.13.1, and SC.2.P.13.1.  |

### Sample Item 16 **SC.4.P.10.2**

Frank uses a bowling ball to demonstrate how energy can cause changes. Which of the following actions would NOT demonstrate a change caused by Frank applying energy to the ball?

- ★ A. He holds the bowling ball in both hands.
- B. He spins the bowling ball with one hand.
- C. He rolls the bowling ball across the floor.
- D. He lifts the bowling ball to place it on a shelf.